Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

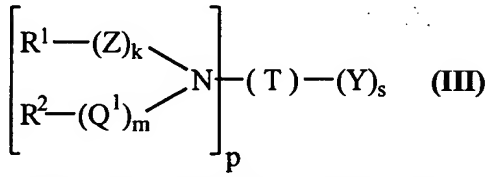
1. (original) An amyloid-targeting imaging agent of the formula

$$A_t—(-A_{lnk}-)_z—A_{lab} \qquad (I)$$

where z is 0 or 1; A_t is an amyloid targeting moiety; A_{lnk} is a linker moiety; and A_{lab} is a labeling moiety.

2. (original) The amyloid-targeting imaging agent of claim 1, where A_t is capable of crossing the blood-brain barrier.

3. (original) The amyloid-targeting imaging agent of claim 1, where A_t is of the formula



(III)

wherein R^1 and R^2 are each independently a hydrogen atom or a substituted or unsubstituted aliphatic or aryl group; Z and Q^1 are each independently carbonyl (C=O), thiocarbonyl (C=S), sulfonyl (SO_2), or sulfoxide (S=O); k and m are independently 0 or 1, provided that when k is 1, R^1 is not a hydrogen atom and when m is 1, R^2 is not a hydrogen atom; p and s are each independently positive integers selected such that the biodistribution of the targeting moiety for an intended target site is not prevented while maintaining therapeutic activity; T is a linking group; and Y is a group of the formula —AX, wherein A is an anionic group at physiological pH, and X is a cationic group.

4. (original) The amyloid-targeting imaging agent of claim 3, where R^1 is an alkyl, alkenyl, or aryl group; k is one; Z is a carbonyl group; R^2 is a hydrogen atom or an alkyl group; m is zero; p and s are 1; T is an alkylene group; and Y^1 is SO_3X^2, where X^2 is H or another cation.

5. (original) The amyloid-targeting imaging agent of claim 3, where R^1 and R^2 are alkyl, alkenyl, or aryl, or R^1 and R^2, taken together, form an alkylene group; k and m are each

one; Z and Q^1 are carbonyl groups; p and s are 1; T is an alkylene group; and Y^1 is SO_3X^2, where X^2 is H or another cation.

6. (original) The amyloid-targeting imaging agent of claim 3, where R^1 is an alkyl, alkenyl, or aryl; k and m are zero; R^2 is hydrogen or an alkyl group, p and s are each one; T is an alkylene group; and Y^1 is SO_3X^2, wherein X^2 is H^+ or another cation.

7. (original) The amyloid-targeting imaging agent of claim 3, where R^1 and R^2 are alkyl, alkenyl, or aryl, or R^1 and R^2, taken together, form an alkylene group; k and m are zero; p and s are each one; T is an alkylene group; and Y^1 is SO_3X^2, where X^2 is H^+ or another cation.

8. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is of formula

$$Q^b\left[\!\!-Y^-\!\!-X^+\right]_{n^2} \qquad \textbf{(IV)}$$

wherein Y^- is an anionic group at physiological pH; Q^b is a carrier molecule; X^+ is a cationic group; and n^2 is an integer selected such that the biodistribution of the targeting moiety for the intended target site is not prevented while maintaining activity of the targeting moiety.

9. (original) The amyloid-targeting imaging agent of claim 8, wherein Y is a sulfonate group.

10. (original) The amyloid-targeting imaging agent of claim 8, wherein Y is a sulfate or thiosulfate group.

11. (original) The amyloid-targeting imaging agent of claim 8, wherein Y is a tetrazole group.

12. (original) The amyloid-targeting imaging agent of claim 3, wherein at least one of k or m equals 1.

13. (original) The amyloid-targeting imaging agent of claim 1, where A_t is a peptide of Formula II, an isomer thereof in which the amino acids are of either D or L stereochemistry, a retro or a retro-inverso isomer thereof, or a peptidomimetic thereof:

$$R'—(P)—R'' \qquad \textbf{(II)},$$

wherein

P is selected from the group consisting of peptides which interact with at least one region of an amyloid protein selected from the group consisting of β sheet region, macrophage adherence region, and GAG-binding site region, or Aβ (1-42), fragments or derivatives thereof; said peptide being comprised of natural or unnatural amino acids of either D or L stereochemical configuration;

R′ is an N-terminal substituent selected from the group consisting of:

- hydrogen;
- substituted or unsubstituted lower alkyl groups selected from the group consisting of acyclic or cyclic having 1 to 8 carbon atoms;
- aromatic groups;
- heterocyclic groups; and
- acyl groups; and

R″ is a C-terminal substituent selected from the group consisting of hydroxy, alkoxy, aryloxy, unsubstituted or substituted amino groups.

14. (original) The amyloid-targeting imaging agent of claim 13, wherein an amino acid of said peptide of Formula II is a hydrophobic amino acid residue.

15. (original) The amyloid-targeting imaging agent of claim 14, wherein said hydrophobic amino acid residue is a leucine residue.

16. (original) The amyloid-targeting imaging agent of claim 13, wherein said peptide of Formula II has at least two [D] amino acid residues.

17. (original) The amyloid-targeting imaging agent of claim 13, wherein said peptide of Formula II has at least three [D] amino acid residues.

18. (original) The amyloid-targeting imaging agent of claim 13, wherein said peptide of Formula II has one [L] amino acid residue.

19. (original) The amyloid-targeting imaging agent of claim 13, wherein said peptide of Formula II is an all-[D] isomer peptide.

20. (original) The amyloid-targeting imaging agent of claim 1, wherein A_{lnk} is selected from the group consisting of amino, alkylamino, arylamino, oxo, alkoxy, oxoalkyl, aryloxy, oxoaryl, thio, alkylthio, thioalkyl, arylthio, thioaryl, carbonyl, alkylcarbonyl,

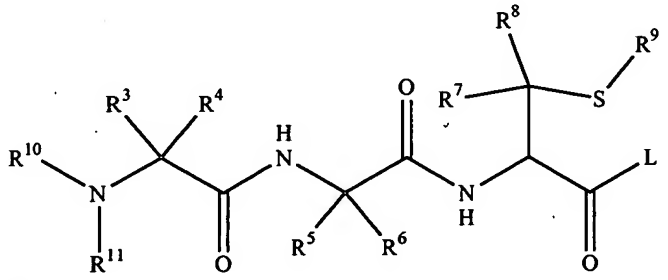
carbonylalkyl, arylcarbonyl, carbonylaryl, carboxyl, alkylcarboxyl, arylcarboxyl, alkyl, alkylenyl, alkeneyl, alkynyl, and aryl groups; glucose; and Phe.

21. (original) The amyloid-targeting imaging agent of claim 1, wherein A_{lab} includes a radionuclide selected from ^{99m}Tc, ^{99}Tc, ^{64}Cu, ^{67}Cu, ^{97}Ru, ^{109}Pd, ^{186}Re, ^{188}Re, ^{111}In, ^{113m}In, ^{153}Gd, ^{90}Y, ^{153}Sm, ^{166}Ho, ^{198}Au, ^{199}Au, ^{90}Sr, ^{89}Sr, ^{105}Rh, ^{201}Tl, ^{51}Cr, ^{67}Ga, ^{57}Co, ^{60}Co, ^{123}I, ^{125}I, ^{131}I or ^{18}F.

22. (original) The amyloid-targeting imaging agent of claim 1, wherein A_{lab} includes a radionuclide selected from the group consisting of Tc and Re.

23. (original) The amyloid-targeting imaging agent of claim 1, wherein A_{lab} is a metal chelate of a radioactive or paramagnetic metal ion.

24. (original) The amyloid-targeting imaging agent of claim 1, wherein A_{lab} comprises a chelating ligand of the formula



(VII)

where R^{10} is a linear or branched, saturated or unsaturated C_{1-4} alkylene group interrupted by one or two heteroatoms; R^{11} is H or R^{10}, or R^{10} and R^{11} taken together, form a 5- to 8-membered saturated or unsaturated heterocyclic ring optionally substituted with one or more of halogen, hydroxyl, amino, carboxyl, oxo, C_{1-4} alkyl, aryl, or C(O)R groups; R^3, R^4, R^5 and R^6 are independently H, carboxyl, C_{1-4} alkyl, an alpha carbon side chain of a D- or L-amino acid other than proline, or C(O)R; R^7 and R^8 are independently H, carboxyl, amino, C_{1-4} alkyl, C_{1-4} alkyl; R^9 is H or a sulfur protecting group; and L is hydroxyl, alkoxy, an amino acid residue, or a linking group.

25. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is selected from the group consisting of 3-[2-(5-amino-1,2,3,4-tetrahydro isoquinolinyl)]-1-propane sulfonic acid hydrochloride, 3[2-(5-bromo-1,2,3,4-tetrahydro isoquinolinyl)]-1-propane sulfonic acid, 2-(3-sulfopropyl)-7-amino-1,2,3,4-tetrahydroiosquinoline hydrochloride, 2-(3-sulfopropyl)-7-bromo-1,2,3,4-tetrahydroisoquinoline), Congo Red, 3-(3,4-dihydro-

1H-isoquinolin-2-yl)-propane-1-sulfonic acid, 3-(1,3,4,9-tetrahydro-b-carbolin-2-yl)-propane-1-sulfonic acid, 4-(1,3,4,9-tetrahydro-b-carbolin-2-yl)-butane-1-sulfonic acid, 2-amino-3-(3-sulfomethyl-phenyl)-propionic acid, 2-amino-3-(3-sulfomethyl-phenyl)-propionic acid, 2-{4-[(2-amino-4-hydroxy-pteridin-6-ylmethyl)-amino]-benzoylamino}-pentanedioic acid, 2,5-dihydroxy-benzene-1,4-disulfonic acid, 2-(4-dimethylamino-phenyl)-3,6-dimethyl-benzothiazol-3-ium; chloride, sodium; 3-(benzothiazol-2-ylsulfanyl)-propane-1-sulfonate, 2,3-dimethyl-benzothiazol-3-ium; iodide, 3-ethyl-2-methyl-benzothiazol-3-ium; iodide, 4-[2-(4-dimethylamino-phenyl)-vinyl]-1-methyl-pyridinium; iodide, 2-[2-(4-dimethylamino-phenyl)-vinyl]-1-ethyl-pyridinium; iodide, and dimethyl-(3-sulfo-propyl)-tetradecyl-ammonium.

26. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is selected from the group consisting of 2-(3-Sulfo-propyl)-1,2,3,4-tetrahydro-isoquinolin-5-yl-ammonium; chloride; 5-dDiacetylamino-2-(3-sulfo-propyl)-isoquinolinium; 5-Nitro-2-(3-sulfo-propyl)-isoquinolinium; 3-(5-bromo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 3-(7-nitro-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl-ammonium; chloride; 3-(7-bromo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-isobutoxysulfonyl-propyl)-5-methyl-1,2,3,4-tetrahydro-isoquinolinium; chloride; 3-(5-iodo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-9H-b-carbolin-2-ium; 2-(2-methoxycarbonyl-ethyl)-1,2,3,4-tetrahydro-isoquinolinium; chloride; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl-ammonium; chloride; 3-(6-bromo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinoline-6-carboxylic acid methyl ester; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinoline-5-carboxylic acid methyl ester; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinoline-7-carboxylic acid methyl ester; 3-(6-bromo-1,3,4,9-tetrahydro-b-carbolin-2-yl)-propane-1-sulfonic acid; 3-(6-amino-1,3,4,9-tetrahydro-b-carbolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-2,3,4,9-tetrahydro-1H-b-carboline-6-carboxylic acid methyl ester; 4-(6-bromo-1,3,4,9-tetrahydro-b-carbolin-2-yl)-butane-1-sulfonic acid; 4-(6-amino-1,3,4,9-tetrahydro-b-carbolin-2-yl)-butane-1-sulfonic acid; and 2-(4-sulfo-butyl)-2,3,4,9-tetrahydro-1H-b-carboline-6-carboxylic acid methyl ester.

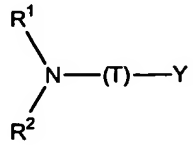
27. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is selected from the group consisting of 3-phenylamino-1-propanesulfonic acid sodium salt, 3-(4-pyridylamino)]-1-propanesulfonic acid, 3-(benzylamino)-1-propanesulfonic acid, diethylphosphonoacetic acid, phosphonoformic acid, trisodium salt, 3-benzoylaminopropanesulfonic acid, 2-deoxy-2-(3-sulfopropyl)amino-d-glucose, 1-phenyl-2,3,-dimethyl-4-methylamino-pyrazolon-5-N-methylsulfonic acid, 3-[(-3,4-dimethyl-1-adamantyl)-amino]-1-propanesulfonic acid, 3-(2-hydroxyethyl)amino-1-propanesulfonic acid, 3-(3-hydroxy-1-propyl)amino-1-propanesulfonic acid, (-)-3-[(R)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, 3-[(d,l)-2-hydroxy-1-propyl]-1-propanesulfonic acid, 3-(4-hydroxy-1-butyl)amino-1-propanesulfonic acid, 3-(5-hydrox-1-pentyl)amino-1-propanesulfonic acid, 3-(6-hydroxy-1-hexyl)amino-1-propanesulfonic acid, 3-(4-hydroxyphenyl)amino-1-propanesulfonic acid, (+)-3-[(S)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, 3-[(dl)-5-hydroxy-2-pentyl]amino-1-propanesulfonic acid, 3-[(dl)-6-hydroxy-2-hexyl]amino-1-propanesulfonic acid, 3-amylamino-1-propanesulfonic acid, 3-hexylamino-1-propanesulfonic acid, 3-heptylamino-1-propanesulfonic acid, 3-octylamino-1-propanesulfonic acid, 3-nonylamino-1-propanesulfonic acid, 3-decylamino-1-propanesulfonic acid, 3-undecylamino-1-propanesulfonic acid, 3-dodecylamino-1-propanesulfonic acid, 3-tridecylamino-1-propanesulfonic acid, 3-tetradecylamino-1-propanesulfonic acid, 3-hexadecylamino-1-propanesulfonic acid, 3-octadecylamino-1-propanesulfonic acid, dimethyl(3-sulfopropyl)-tetradecylammonium hydroxide, inner salt, 2-(3-Sulfobutyl)-1,2,3,4-tetrahydro-9H-pyrido [3,4-b] indole, sodium, 3-[1,2,3,4-tetrahydro-9H-pyrido (3,4-b)indolyl]-1-propanesulfonic acid, 2,5-dihydroxy-1,4-benzenedisulfonic acid, H-dLys-dLeu-dVal-dPhe-dPhe-dAla-OH (SEQ ID NO. 28), Thioflavin T, Folic acid dihydrate, 3-(2-benzothiazolylthio)-1-propanesulfonic acid, 2,3-dimethylbenzothiazolium, 3-ethyl-2-methylbenzothiazolium, trans-4-[4-(dimethylamino)styryl]-1-methylpyridinium, 2-[4-(dimethylamino)styryl]-1-ethylpyridinium, and dimethyl(3-sulfopropyl) tetradecylammonium hydroxide inner salt.

28. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is selected from the group consisting of 3-acetylaminopropanesulfonic acid, 3-benzoylamino-1-propanesulfonic acid sodium salt, and 2-acrylamido-2-methyl-1-propanesulfonic acid.

29. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is selected from the group consisting of 3-phthalimido-1-propanesulfonic acid, N-(3-sulfopropyl)saccharin and 4-phthalimido-1-butanesulfonic acid.

30. (original) The amyloid-targeting imaging agent of claim 1, wherein A_t is selected from the group consisting of 3-dimethylamino-1-propanesulfonic acid, 4-(1-piperidinyl)-1-butanesulfonic acid, 3-[1-(1,2,3,6-tetrahydropyridyl)]-1-propanesulfonic acid, 3-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[2-(6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[1-(1,2,3,4-tetrahydroquinolinyl)]-1-propanesulfonic acid, 2-(3-sulfopropyl)-1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole, sodium salt, 3-(1-indolinyl)-1-propanesulfonic acid, 3-[2-(6-methoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-(2-isoindolinyl)-1-propanesulfonic acid, 3-(4-benzyl-1-piperidinyl)-1-propanesulfonic acid, 1-(3-sulfopropyl)-(S)-nicotinium hydroxide inner salt, 3-[2-(1,2,3,4,5,6,7,8-octahydroisoquinolinyl)]-1-propanesulfonic acid, Thiazol Yellow G, 3-sulfolmethylphenylalanine, Chicago Sky Blue 6B, 4-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-butanesulfonic acid, and 3-sulfomethyl-L-phenylalanine.

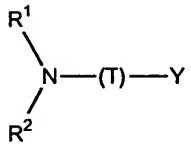
31. (original) The amyloid-targeting imaging agent of claim 1, where A_t is of the formula



where

- R^1 is an alkyl, alkenyl, hydroxyalkyl, or a single-ring aromatic group;
- R^2 is a alkyl, alkenyl, hydroxyalkyl, a single-ring aromatic group, or a hydrogen atom, or R^1 and R^2, taken together with the nitrogen to which they are attached, form a heterocyclic group which is a fused ring structure;
- T is an alkylene group;
- Y is SO_3X, and X is a cationic group.

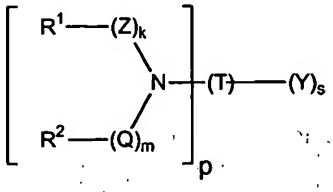
32. (original) The amyloid-targeting imaging agent of claim 1, where A_t is of the formula



where

- R^1 is a C_5-C_{18} alkyl, hydroxyalkyl or single-ring aromatic group;
- R^2 is a hydrogen atom or an alkyl group;
- T is an alkylene group;
- Y is SO_3X, and X is a cationic group.

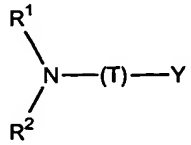
33. (original) The amyloid-targeting imaging agent of claim 1, where A_t is of the formula



where

- R^1 is an alkyl, an alkenyl, or an aromatic group;
- R^2 is a hydrogen atom, an alkyl group, or an aromatic group, or R^1 and R^2, taken together, form a heterocyclic group which is a fused ring structure;
- Z and Q are each independently a carbonyl (C=O), thiocarbonyl (C=S), sulfonyl (SO_2), or sulfoxide (S=O) group;
- k is 1 and m is 0 or 1;
- p and s are each 1;
- T is an alkylene group;
- Y is SO_3X, and X is a cationic group.

34. (original) The amyloid-targeting imaging agent of claim 1, where A_t is of the formula



where

- R^1 and R^2 are alkyl, alkenyl, or single-ring aromatic groups, or R^1 and R^2, taken together with the nitrogen to which they are attached, form a heterocyclic group which is a fused ring structure;
- T is an alkylene group;

- Y is SO_3X, and X is a cationic group.

35. (original) The amyloid-targeting imaging agent of claim 33, wherein said A_t is selected from the group consisting of 3-acetylamino-1-propanesulfonic acid, 3-benzoylamino-1-propanesulfonic acid, and 2-acrylamido-2-methyl-1-propanesulfonic acid.

36. (original) The amyloid-targeting imaging agent of claim 33, wherein said A_t is selected from the group consisting of 3-phthalimido-1-propanesulfonic acid, N-(3-sulfopropyl)saccharin and 4-phthalimido-1-butanesulfonic acid.

37. (original) The amyloid-targeting imaging agent of claim 32, wherein said A_t is selected from the group consisting of 3-phenylamino-1-propanesulfonic acid, 3-(4-pyridylamino)]-1-propanesulfonic acid, 3-(benzylamino)-1-propanesulfonic acid, 2-deoxy-2-(3-sulfopropyl)amino-D-glucose, 3-[(-3,4-dimethyl-1-adamantyl)-amino]-1-propanesulfonic acid, 3-[(-3,5-dimethyl-1-adamantyl)-amino]-1-propanesulfonic acid, 3-(2-hydroxyethyl)amino-1-propanesulfonic acid, 3-(3-hydroxy-1-propyl)amino-1-propanesulfonic acid, (-)-3-[(R)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, 3-[(d,l)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, 3-(4-hydroxy-1-butyl)amino-1-propanesulfonic acid, 3-(5-hydrox-1-pentyl)amino-1-propanesulfonic acid, 3-(6-hydroxy-1-hexyl)amino-1-propanesulfonic acid, 3-(4-hydroxyphenyl)amino-1-propanesulfonic acid, (+)-3-[(S)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, 3-[(dl)-5-hydroxy-2-pentyl]amino-1-propanesulfonic acid, 3-[(dl)-6-hydroxy-2-hexyl]amino-1-propanesulfonic acid, 3-(1-hydroxymethyl-1-cyclopentyl)amino-1-propanesulfonic acid, 3-amylamino-1-propanesulfonic acid, 3-hexylamino-1-propanesulfonic acid, 3-heptylamino-1-propanesulfonic acid, 3-octylamino-1-propanesulfonic acid, 3-nonylamino-1-propanesulfonic acid, 3-decylamino-1-propanesulfonic acid, 3-undecylamino-1-propanesulfonic acid, 3-dodecylamino-1-propanesulfonic acid, 3-tridecylamino-1-propanesulfonic acid, 3-tetradecylamino-1-propanesulfonic acid, 3-hexadecylamino-1-propanesulfonic acid, and 3-octadecylamino-1-propanesulfonic acid.

38. (original) The amyloid-targeting imaging agent of claim 34, wherein said A_t is selected from the group consisting of 1-phenyl-2,3,-dimethyl-4-methylamino-pyrazolon-5-N-methylsulfonic acid; 3-dimethylamino-1-propanesulfonic acid, 3-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[2-(6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[1-(1,2,3,4-tetrahydroquinolinyl)]-1-propanesulfonic acid, 2-(3-sulfopropyl)-1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole, 3-(1-indolinyl)-1-propanesulfonic acid, 3-[2-(6-methoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-(2-isoindolinyl)-1-propanesulfonic acid, 3-[2-(1,2,3,4,5,6,7,8-octahydroisoquinolinyl)]-1-propanesulfonic acid, and 4-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-butanesulfonic acid.

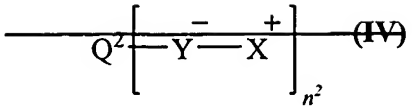
39. (original) The amyloid-targeting imaging agent of claim 1, where said A_t is selected from the group consisting of 4-phenyl-1-(3'-sulfopropyl)-1,2,3,6-tetrahydropyridine; 2-(3-sulfobutyl)-1,2,3,4-tetrahydro-9H-pyrido [3,4-b] indole; 3-(4-benzyl-1-piperidinyl)-1-propanesulfonic acid, 3-sulfonylmethylphenylalanine, 4-(1-piperidinyl)-1-butanesulfonic acid, cyclohexylsulfamic acid; 1-(3-sulfopropyl)-(S)-nicotinium hydroxide inner salt, 3-[1-(1,2,3,6-tetrahydropyridyl)]-1-propanesulfonic acid, 3-sulfomethyl-D,L-phenylalanine and 3-sulfomethyl-L-phenylalanine.

40.-42. (canceled)

43. (original) A kit for preparing a radiopharmaceutical preparation, said kit comprising:

- an amyloid-targeting imaging agent of claim 1;
- a reducing agent;
- a buffering agent;
- a transchelating agent, and
- instructions for the preparation and use of the radiopharmaceutical in the imaging of amyloid or an amyloid-related condition.

44. (currently amended) The kit of claim 43, wherein A_t is of formula



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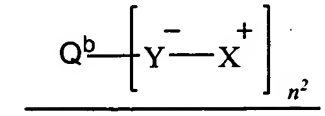


(IV)

wherein Y^- is an anionic group at physiological pH; Q^b is a carrier molecule; X^+ is a cationic group; and n^2 is an integer selected such that the biodistribution of the targeting moiety for the intended target site is not prevented while maintaining activity of the targeting moiety.

45. (original) The kit of claim 44, wherein Y is a sulfonate group.

46. (original) The kit of claim 44, wherein Y is a sulfate or thiosulfate group.

47. (original) The kit of claim 44, wherein Y is a tetrazole group.

48. (canceled)

49. (original) The amyloid-targeted imaging agent of claim 13 wherein said peptide is selected from the group consisting of SEQ ID NOS 1-28.

50. (original) The amyloid-targeted imaging agent of claim 49 wherein said peptide is modified by substitution of one amino acid by a different amino acid or by deletion of one amino acid.

51. (original) A method of diagnostic medical imaging of an amyloid-associated disease comprising the steps of administering to a patient a pharmaceutical composition according to claim 1 and then imaging said patient.

52. (original) The method of diagnostic medical imaging according to claim 51 wherein A_{lab} of said pharmaceutical composition is a radiopharmaceutical.

53. (original) The method of diagnostic medical imaging according to claim 51 wherein A_{lab} of said pharmaceutical composition is a metal chelate.

54. (original) The method of diagnostic medical imaging according to claim 53 wherein said metal chelate is gadolinium-DTPA, gadolinium-DOTA, or gadolinium-DO3A.

55. (original) The method of diagnostic medical imaging according to claim 53 wherein said metal chelate is a chelate of ^{99m}Tc or ^{111}In.

56. (original) The method of diagnostic medical imaging according to claim 51 wherein said imaging step is ultrasound imaging.

57. (currently amended) The method of claim ~~48~~ 105, wherein said imaging step is radionuclide imaging.

58. (original) The method of claim 57, wherein said imaging step is SPECT imaging.

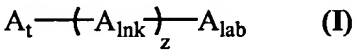
59. (currently amended) The method of claim ~~48~~ 105, wherein said imaging step is magnetic resonance imaging.

60. (currently amended) The method of claim ~~48~~ 105, wherein said imaging step is ultrasound imaging.

61. (currently amended) The method of claim ~~48~~ 105, wherein said imaging step is X-ray imaging.

62. (currently amended) The method of claim ~~48~~ 105, wherein said imaging step is fluorescence imaging.

63. (currently amended) The method of claim ~~48~~ 105, wherein said amyloid-targeting imaging agent has the formula



(I)

where z is 0 or 1; A_t is an amyloid targeting moiety; A_{lnk} is a linker moiety; and A_{lab} is a labeling moiety.

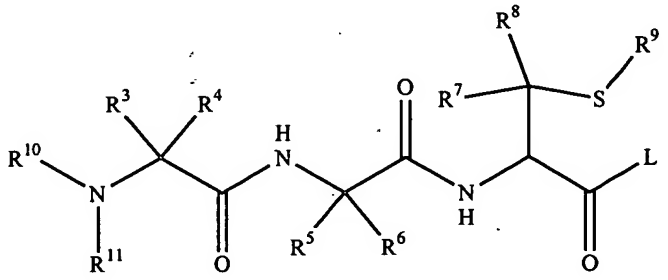
64. (original) The method of claim 63, wherein A_{lnk} is selected from the group consisting of amino, alkylamino, arylamino, oxo, alkoxy, oxoalkyl, aryloxy, oxoaryl, thio, alkylthio, thioalkyl, arylthio, thioaryl, carbonyl, alkylcarbonyl, carbonylalkyl, arylcarbonyl, carbonylaryl, carboxyl, alkylcarboxyl, arylcarboxyl, alkyl, alkylenyl, alkeneyl, alkynyl, and aryl groups; glucose; and Phe.

65. (original) The method of claim 63, wherein A_{lab} includes a radionuclide selected from ^{99m}Tc, ^{99}Tc, ^{64}Cu, ^{67}Cu, ^{97}Ru, ^{109}Pd, ^{186}Re, ^{188}Re, ^{111}In, ^{113m}In, ^{153}Gd, ^{90}Y, ^{153}Sm, ^{166}Ho, ^{198}Au, ^{199}Au, ^{90}Sr, ^{89}Sr, ^{105}Rh, ^{201}Tl, ^{51}Cr, ^{67}Ga, ^{57}Co, ^{60}Co, ^{123}I, ^{125}I, ^{131}I, or ^{18}F.

66. (original) The method of claim 63, wherein A_{lab} includes a radionuclide selected from the group consisting of Tc and Re.

67. (original) The method of claim 63, wherein A_{lab} is a metal chelate of a radioactive or paramagnetic metal ion.

68. (original) The method of claim 63, wherein A_{lab} comprises a chelating ligand of the formula

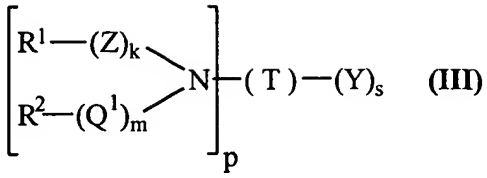


(VII)

where R^{10} is a linear or branched, saturated or unsaturated C_{1-4} alkylene group interrupted by one or two heteroatoms; R^{11} is H or R^{10}, or R^{10} and R^{11} taken together, form a 5- to 8-membered saturated or unsaturated heterocyclic ring optionally substituted with one or more of halogen, hydroxyl, amino, carboxyl, oxo, C_{1-4} alkyl, aryl, or C(O)R groups; R^3, R^4, R^5 and R^6 are independently H, carboxyl, C_{1-4} alkyl, an alpha carbon side chain of a D- or L-amino acid other than proline, or C(O)R; R^7 and R^8 are independently H, carboxyl, amino, C_{1-4} alkyl, C_{1-4} alkyl; R^9 is H or a sulfur protecting group; and L is hydroxyl, alkoxy, an amino acid residue, or a linking group.

69. (original) The method of claim 63, where A_t is capable of crossing the blood-brain barrier.

70. (original) The method of claim 63, where A_t is of the formula



(III)

wherein R^1 and R^2 are each independently a hydrogen atom or a substituted or unsubstituted aliphatic or aryl group; Z and Q^1 are each independently carbonyl (C=O), thiocarbonyl (C=S), sulfonyl (SO_2), or sulfoxide (S=O); k and m are independently 0 or 1, provided that when k is 1, R^1 is not a hydrogen atom and when m is 1, R^2 is not a hydrogen atom; p and s are each independently positive integers selected such that the biodistribution of the targeting moiety for an intended target site is not prevented while maintaining therapeutic activity; T is a linking group; and Y is a group of the formula -AX, wherein A is an anionic group at physiological pH, and X is a cationic group.

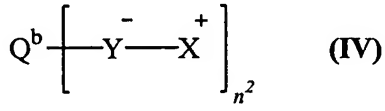
71. (original) The method of claim 70, where R^1 is an alkyl, alkenyl, or aryl group; k is one; Z is a carbonyl group; R^2 is a hydrogen atom or an alkyl group; m is zero; p and s are 1; T is an alkylene group; and Y^1 is SO_3X^2, where X^2 is H or another cation.

72. (original) The method of claim 70, where R^1 and R^2 are alkyl, alkenyl, or aryl, or R^1 and R^2, taken together, form an alkylene group; k and m are each one; Z and Q^1 are carbonyl groups; p and s are 1; T is an alkylene group; and Y^1 is SO_3X^2, where X^2 is H or another cation.

73. (original) The method of claim 70, where R^1 is an alkyl, alkenyl, or aryl; k and m are zero; R^2 is hydrogen or an alkyl group, p and s are each one; T is an alkylene group; and Y^1 is SO_3X^2, wherein X^2 is H^+ or another cation.

74. (original) The method of claim 70, where R^1 and R^2 are alkyl, alkenyl, or aryl, or R^1 and R^2, taken together, form an alkylene group; k and m are zero; p and s are each one; T is an alkylene group; and Y^1 is SO_3X^2, where X^2 is H^+ or another cation.

75. (original) The method of claim 63, wherein A_t is of formula



(IV)

wherein Y^- is an anionic group at physiological pH; Q^b is a carrier molecule; X^+ is a cationic group; and n^2 is an integer selected such that the biodistribution of the targeting moiety for the intended target site is not prevented while maintaining activity of the targeting moiety.

76. (original) The method of claim 75, wherein Y is a sulfonate group.

77. (original) The method of claim 75, wherein Y is a sulfate or thiosulfate group.

78. (original) The method of claim 75, wherein Y is a tetrazole group.

79. (original) The method of claim 70, wherein at least one of k or m equals 1.

80. (original) The method of claim 63, wherein A_t is selected from the group consisting of 3-[2-(5-amino-1,2,3,4-tetrahydro isoquinolinyl)]-1-propane sulfonic acid hydrochloride, 3[2-(5-bromo-1,2,3,4-tetrahydro isoquinolinyl)]-1-propane sulfonic acid, 2-(3-sulfopropyl)-7-amino-1,2,3,4-tetrahydroiosquinoline hydrochloride, 2-(3-sulfopropyl)-7-bromo-1,2,3,4-tetrahydroisoquinoline), Congo Red, 3-(3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid, 3-(1,3,4,9-tetrahydro-b-carbolin-2-yl)-propane-1-sulfonic acid, 4-(1,3,4,9-tetrahydro-b-carbolin-2-yl)-butane-1-sulfonic acid, 2-amino-3-(3-sulfomethyl-phenyl)-propionic acid, 2-amino-3-(3-sulfomethyl-phenyl)-propionic acid, 2-{4-[(2-amino-4-hydroxy-pteridin-6-ylmethyl)-amino]-benzoylamino}-pentanedioic acid, 2,5-dihydroxy-benzene-1,4-disulfonic acid, 2-(4-dimethylamino-phenyl)-3,6-dimethyl-benzothiazol-3-ium; chloride, sodium; 3-(benzothiazol-2-ylsulfanyl)-propane-1-sulfonate, 2,3-dimethyl-benzothiazol-3-ium; iodide, 3-ethyl-2-methyl-benzothiazol-3-ium; iodide, 4-[2-(4-dimethylamino-phenyl)-vinyl]-1-methyl-pyridinium; iodide, 2-[2-(4-dimethylamino-phenyl)-vinyl]-1-ethyl-pyridinium; iodide, and dimethyl-(3-sulfo-propyl)-tetradecyl-ammonium.

81. (original) The method of claim 63, wherein A_t is selected from the group consisting of 2-(3-Sulfo-propyl)-1,2,3,4-tetrahydro-isoquinolin-5-yl-ammonium; chloride; 5-diacetylamino-2-(3-sulfo-propyl)-isoquinolinium; 5-Nitro-2-(3-sulfo-propyl)-isoquinolinium; 3-(5-bromo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 3-(7-nitro-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl-ammonium; chloride; 3-(7-bromo-3,4-dihydro-1H-

isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-isobutoxysulfonyl-propyl)-5-methyl-1,2,3,4-tetrahydro-isoquinolinium; chloride; 3-(5-iodo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-9H-b-carbolin-2-ium; 2-(2-methoxycarbonyl-ethyl)-1,2,3,4-tetrahydro-isoquinolinium; chloride; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl-ammonium; chloride; 3-(6-bromo-3,4-dihydro-1H-isoquinolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinoline-6-carboxylic acid methyl ester; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinoline-5-carboxylic acid methyl ester; 2-(3-sulfo-propyl)-1,2,3,4-tetrahydro-isoquinoline-7-carboxylic acid methyl ester; 3-(6-bromo-1,3,4,9-tetrahydro-b-carbolin-2-yl)-propane-1-sulfonic acid; 3-(6-amino-1,3,4,9-tetrahydro-b-carbolin-2-yl)-propane-1-sulfonic acid; 2-(3-sulfo-propyl)-2,3,4,9-tetrahydro-1H-b-carboline-6-carboxylic acid methyl ester; 4-(6-bromo-1,3,4,9-tetrahydro-b-carbolin-2-yl)-butane-1-sulfonic acid; 4-(6-amino-1,3,4,9-tetrahydro-b-carbolin-2-yl)-butane-1-sulfonic acid; and 2-(4-sulfo-butyl)-2,3,4,9-tetrahydro-1H-b-carboline-6-carboxylic acid methyl ester.

82. (original) The method of claim 63, wherein A_t is selected from the group consisting of 3-phenylamino-1-propanesulfonic acid sodium salt, 3-(4-pyridylamino)]-1-propanesulfonic acid, 3-(benzylamino)-1-propanesulfonic acid, diethylphosphonoacetic acid, phosphonoformic acid, trisodium salt, 3-benzoylaminopropanesulfonic acid, 2-deoxy-2-(3-sulfopropyl)amino-d-glucose, 1-phenyl-2,3,-dimethyl-4-methylamino-pyrazolon-5-N-methylsulfonic acid, 3-[(-3,4-dimethyl-1-adamantyl)-amino]-1-propanesulfonic acid, 3-(2-hydroxyethyl)amino-1-propanesulfonic acid, 3-(3-hydroxy-1-propyl)amino-1-propanesulfonic acid, (-)-3-[(R)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, 3-[(d,l)-2-hydroxy-1-propyl]-1-propanesulfonic acid, 3-(4-hydroxy-1-butyl)amino-1-propanesulfonic acid, 3-(5-hydrox-1-pentyl)amino-1-propanesulfonic acid, 3-(6-hydroxy-1-hexyl)amino-1-propanesulfonic acid, 3-(4-hydroxyphenyl)amino-1-propanesulfonic acid, (+)-3-[(S)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, 3-[(dl)-5-hydroxy-2-pentyl]amino-1-propanesulfonic acid, 3-[(dl)-6-hydroxy-2-hexyl]amino-1-propanesulfonic acid, 3-amylamino-1-propanesulfonic acid, 3-hexylamino-1-

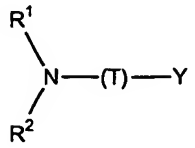
propanesulfonic acid, 3-heptylamino-1-propanesulfonic acid, 3-octylamino-1-propanesulfonic acid, 3-nonylamino-1-propanesulfonic acid, 3-decylamino-1-propanesulfonic acid, 3-undecylamino-1-propanesulfonic acid, 3-dodecylamino-1-propanesulfonic acid, 3-tridecylamino-1-propanesulfonic acid, 3-tetradecylamino-1-propanesulfonic acid, 3-hexadecylamino-1-propanesulfonic acid, 3-octadecylamino-1-propanesulfonic acid, dimethyl(3-sulfopropyl)-tetradecylammonium hydroxide, inner salt, 2-(3-Sulfobutyl)-1,2,3,4-tetrahydro-9H-pyrido [3,4-b] indole, sodium, 3-[1,2,3,4-tetrahydro-9H-pyrido (3,4-b)indolyl]-1-propanesulfonic acid, 2,5-dihydroxy-1,4-benzenedisulfonic acid, Thioflavin T, Folic acid dihydrate, 3-(2-benzothiazolylthio)-1-propanesulfonic acid, 2,3-dimethylbenzothiazolium, 3-ethyl-2-methylbenzothiazolium, trans-4-[4-(dimethylamino)styryl]-1-methylpyridinium, 2-[4-(dimethylamino)styryl]-1-ethylpyridinium, and dimethyl(3-sulfopropyl) tetradecylammonium hydroxide inner salt.

83. (original) The method of claim 63, wherein A_t is selected from the group consisting of 3-acetylaminopropanesulfonic acid, 3-benzoylamino-1-propanesulfonic acid sodium salt, and 2-acrylamido-2-methyl-1-propanesulfonic acid.

84. (original) The method of claim 63, wherein A_t is selected from the group consisting of 3-phthalimido-1-propanesulfonic acid, N-(3-sulfopropyl)saccharin and 4-phthalimido-1-butanesulfonic acid.

85. (original) The method of claim 63, wherein A_t is selected from the group consisting of 3-dimethylamino-1-propanesulfonic acid, 4-(1-piperidinyl)-1-butanesulfonic acid, 3-[1-(1,2,3,6-tetrahydropyridyl)]-1-propanesulfonic acid, 3-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[2-(6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[1-(1,2,3,4-tetrahydroquinolinyl)]-1-propanesulfonic acid, 2-(3-sulfopropyl)-1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole, sodium salt, 3-(1-indolinyl)-1-propanesulfonic acid, 3-[2-(6-methoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-(2-isoindolinyl)-1-propanesulfonic acid, 3-(4-benzyl-1-piperidinyl)-1-propanesulfonic acid, 1-(3-sulfopropyl)-(S)-nicotinium hydroxide inner salt, 3-[2-(1,2,3,4,5,6,7,8-octahydroisoquinolinyl)]-1-propanesulfonic acid, Thiazol Yellow G, 3-sulfolmethylphenylalanine, Chicago Sky Blue 6B, 4-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-butanesulfonic acid, and 3-sulfomethyl-L-phenylalanine.

86. (original) The method of claim 63, where A_t is of the formula



where

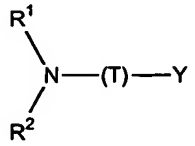
R^1 is an alkyl, alkenyl, hydroxyalkyl, or a single-ring aromatic group;

R^2 is a alkyl, alkenyl, hydroxyalkyl, a single-ring aromatic group, or a hydrogen atom, or R^1 and R^2, taken together with the nitrogen to which they are attached, form a heterocyclic group which is a fused ring structure;

T is an alkylene group;

Y is SO_3X, and X is a cationic group.

87. (original) The method of claim 63, where A_t is of the formula



where

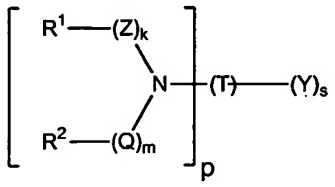
R^1 is a C_5-C_{18} alkyl, hydroxyalkyl or single-ring aromatic group;

R^2 is a hydrogen atom or an alkyl group;

T is an alkylene group;

Y is SO_3X, and X is a cationic group.

88. (original) The method of claim 63, where A_t is of the formula



where

R^1 is an alkyl, an alkenyl, or an aromatic group;

R^2 is a hydrogen atom, an alkyl group, or an aromatic group, or R^1 and R^2, taken together, form a heterocyclic group which is a fused ring structure;

Z and Q are each independently a carbonyl (C=O), thiocarbonyl (C=S), sulfonyl (SO_2), or sulfoxide (S=O) group;

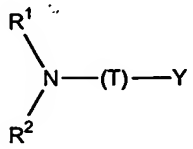
k is 1 and m is 0 or 1;

p and s are each 1;

T is an alkylene group;

Y is SO_3X, and X is a cationic group.

89. (original) The method of claim 63, where A_t is of the formula



where

R^1 and R^2 are alkyl, alkenyl, or single-ring aromatic groups, or R^1 and R^2, taken together with the nitrogen to which they are attached, form a heterocyclic group which is a fused ring structure;

T is an alkylene group;

Y is SO_3X, and X is a cationic group.

90. (original) The method of claim 88, wherein said A_t is selected from the group consisting of 3-acetylamino-1-propanesulfonic acid, 3-benzoylamino-1-propanesulfonic acid, and 2-acrylamido-2-methyl-1-propanesulfonic acid.

91. (original) The method of claim 88, wherein said A_t is selected from the group consisting of 3-phthalimido-1-propanesulfonic acid, N-(3-sulfopropyl)saccharin and 4-phthalimido-1-butanesulfonic acid.

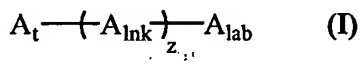
92. (original) The method of claim 87, wherein said A_t is selected from the group consisting of 3-phenylamino-1-propanesulfonic acid, 3-(4-pyridylamino)]-1-propanesulfonic acid,

3-(benzylamino)-1-propanesulfonic acid, 2-deoxy-2-(3-sulfopropyl)amino-D-glucose, 3-[(-3,4-dimethyl-1-adamantyl)-amino]-1-propanesulfonic acid, 3-[(-3,5-dimethyl-1-adamantyl)-amino]-1-propanesulfonic acid, 3-(2-hydroxyethyl)amino-1-propanesulfonic acid, 3-(3-hydroxy-1-propyl)amino-1-propanesulfonic acid, (-)-3-[(R)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, 3-[(d,l)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, 3-(4-hydroxy-1-butyl)amino-1-propanesulfonic acid, 3-(5-hydrox-1-pentyl)amino-1-propanesulfonic acid, 3-(6-hydroxy-1-hexyl)amino-1-propanesulfonic acid, 3-(4-hydroxyphenyl)amino-1-propanesulfonic acid, (+)-3-[(S)-2-hydroxy-1-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-propyl]amino-1-propanesulfonic acid, (+)-3-[(S)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, (-)-3-[(R)-1-hydroxy-2-butyl]amino-1-propanesulfonic acid, 3-[(dl)-5-hydroxy-2-pentyl]amino-1-propanesulfonic acid, 3-[(dl)-6-hydroxy-2-hexyl]amino-1-propanesulfonic acid, 3-(1-hydroxymethyl-1-cyclopentyl)amino-1-propanesulfonic acid, 3-amylamino-1-propanesulfonic acid, 3-hexylamino-1-propanesulfonic acid, 3-heptylamino-1-propanesulfonic acid, 3-octylamino-1-propanesulfonic acid, 3-nonylamino-1-propanesulfonic acid, 3-decylamino-1-propanesulfonic acid, 3-undecylamino-1-propanesulfonic acid, 3-dodecylamino-1-propanesulfonic acid, 3-tridecylamino-1-propanesulfonic acid, 3-tetradecylamino-1-propanesulfonic acid, 3-hexadecylamino-1-propanesulfonic acid, and 3-octadecylamino-1-propanesulfonic acid.

93. (original) The method of claim 89, wherein said A_t is selected from the group consisting of 1-phenyl-2,3,-dimethyl-4-methylamino-pyrazolon-5-N-methylsulfonic acid; 3-dimethylamino-1-propanesulfonic acid, 3-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[2-(6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-[1-(1,2,3,4-tetrahydroquinolinyl)]-1-propanesulfonic acid, 2-(3-sulfopropyl)-1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole, 3-(1-indolinyl)-1-propanesulfonic acid, 3-[2-(6-methoxy-1,2,3,4-tetrahydroisoquinolinyl)]-1-propanesulfonic acid, 3-(2-isoindolinyl)-1-propanesulfonic acid, 3-[2-(1,2,3,4,5,6,7,8-octahydroisoquinolinyl)]-1-propanesulfonic acid, and 4-[2-(1,2,3,4-tetrahydroisoquinolinyl)]-1-butanesulfonic acid .

94. (original) The method of claim 63, where said A_t is selected from the group consisting of 4-phenyl-1-(3'-sulfopropyl)-1,2,3,6-tetrahydropyridine; 2-(3-sulfobutyl)-1,2,3,4-tetrahydro-9H-pyrido [3,4-b] indole; 3-(4-benzyl-1-piperidinyl)-1-propanesulfonic acid, 3-sulfonylmethylphenylalanine, 4-(1-piperidinyl)-1-butanesulfonic acid, cyclohexylsulfamic acid; 1-(3-sulfopropyl)-(S)-nicotinium hydroxide inner salt, 3-[1-(1,2,3,6-tetrahydropyridyl)]-1-propanesulfonic acid, 3-sulfomethyl-D,L-phenylalanine and 3-sulfomethyl-L-phenylalanine.

95. (original) A method for diagnostic medical imaging of an amyloid-associated disease in a patient, comprising administering to a patient a pharmaceutical composition comprising an amyloid-targeting imaging agent of the formula



(I)

as defined in claim 63 and then imaging the amyloid-targeting imaging agent in said patient..

96. (original) The method of claim 95, wherein A_{lab} of said pharmaceutical composition is a radiopharmaceutical.

97. (original) The method of claim 95, wherein A_{lab} of said pharmaceutical composition is a metal chelate.

98. (original) The method of claim 95, wherein A_{lab} of said pharmaceutical composition is a metal chelate and said imaging step is magnetic resonance imaging or radionuclide imaging.

99. (original) The method of claim 97, wherein said metal chelate is gadolinium-DTPA, gadolinium-DOTA, or gadolinium-DO3A.

100. (original) The method of claim 97, wherein said metal chelate is a chelate of ^{99m}Tc or ^{111}In.

101. (original) The method of claim 63, wherein said imaging step is ultrasound imaging.

102. (original) The amyloid-targeting imaging agent of claim 1, where A_t is 2-(3-sulfopropyl)-7-amino-1,2,3,4-tetrahydroisoquinoline, 3-[2-(5-amino-1,2,3,4-tetrahydroisoquinolinyl)]-

1-propane sulfonic acid, 2-(3-sulfopropyl)-6-amino-1,2,3,4-tetrahydro-9H-pyrrido[3,4b]indole, 2-(4-sulfobutyl)-6-amino-1,2,3,4-tetrahydro-9H-pyrido[3,4b]indole, 1,6-hexanedisulfonate, 3-hydroxypropylsulfamic acid, 4-(1-piperidinyl)-1-butanesulfonic acid, 1,4-piperazinebis(propanesulfonic acid), 3-[1-(1,2,3,6-tetrahydropyridinyl)]-1-propanesulfonic acid, Thiazole yellow G, alpha-N-(3-sulfopropyl)-L-lysine, 3-(6-hydroxy-1-hexyl)amino-1-propane sulfonic acid, 3-(1-hydroxymethyl-1-cyclopentyl)amino-1-propane sulfonic acid, or methyl 2-(2-carboxyethyl)-1,2,3,4-tetrahydroisoquinoline hydrochloride, 2-(3-sulfopropyl)-7-amino-1,2,3,4-tetrahydroisoquinoline, 3-[2-(5-amino-1,2,3,4-tetrahydroisoquinolinyl)]-1-propane sulfonic acid, 2-(3-sulfopropyl)-6-amino-1,2,3,4-tetrahydro-9H-pyrrido[3,4b]indole, or 2-(4-sulfobutyl)-6-amino-1,2,3,4-tetrahydro-9H-pyrido[3,4b]indole.

103. (new) A method for diagnosing an amyloid-related condition in a patient, comprising administering an amyloid-targeting imaging agent according to claim 1 to a patient, and imaging said amyloid-targeting imaging agent in said patient to determine the presence of amyloid in said patient, such that the presence or absence of an amyloid-related condition in said patient is determined.

104. (new) The method of claim 103, wherein said amyloid-related condition is selected from the group consisting of Creutzfeld-Jakob Disease (CJD), Kuru, transmissible cerebral amyloidoses (also known as transmissible virus dementias), familial CJD, scrapie, transmissible mink encephalopathy, bovine spongiform encephalopathy (BSE), inflammation-associated amyloid, type II diabetes, primary amyloidosis, feline spongiform encephalopathy, non-transmissible cerebral amyloidosis (e.g., Alzheimer's disease), prion-mediated diseases, dialysis-related amyloidosis, light chain-related amyloidosis, cerebral amyloid angiopathy, and Alzheimer's disease.

105. (new) A method for imaging amyloid deposition in a patient, comprising administering an amyloid-targeting imaging agent according to claim 1 to a patient, and imaging said amyloid-targeting imaging agent in said patient to determine the presence of amyloid in said patient.